

In the Claims:

Claims 1 to 23 (canceled)

1 24. (currently amended) The method according to claim 1,
2 further comprising, A method of making a molded component
3 having a molded-in surface texture, using a molding
4 apparatus including a front mold having a front mold
5 surface with a front mold surface texture, and a back mold
6 having a back mold surface opposed to said front mold, said
7 method comprising the following steps:

8 a) providing a cover sheet including a skin film
9 comprising a skin film material, and a foam backing
10 comprising a foam backing material;

11 b) heating said cover sheet so as to heat said skin film
12 to a first temperature equal to or above a melting
13 temperature of said skin film material, and so as to
14 heat said foam backing to a second temperature below
15 a melting temperature of said foam backing material;

16 c) arranging said cover sheet between said front mold and
17 said back mold with said skin film facing toward said
18 front mold and said foam backing facing toward said
19 back mold, and then moving at least one of said front
20 mold and said back mold relatively toward each other
21 with said cover sheet therebetween;

22 d) molding said cover sheet and bringing said skin film
23 into direct contact with said front mold surface so as
24 to mold into said skin film a molded-in surface

25 texture that is the inverse of said front mold surface
26 texture;

27 e) after said step d), cooling said cover sheet and
28 moving apart at least one of said front mold and said
29 back mold relative to each other; and
30 f) after said step e), introducing a substrate material
31 between said foam backing and said back mold surface,
32 and —then— moving at least one of said front mold and
33 said back mold relatively toward each other, so that
34 said back mold surface presses against said substrate
35 material and molds and bonds said substrate material
36 onto said foam backing so as to form a molded
37 substrate from said substrate material.

1 25. (original) The method according to claim 24, wherein said
2 substrate material is a pre-heated sheet of at least one
3 composite material selected from the group consisting of
4 polypropylene and natural fibers, polypropylene and
5 polyester fibers, and polypropylene and glass fibers.

1 26. (original) The method according to claim 24, wherein said
2 substrate material is a polyurethane foam.

1 27. (original) The method according to claim 24, wherein said
2 introducing of said substrate material comprises one of
3 injecting, spraying, pouring and casting said substrate
4 material in a viscous liquid state.

1 28. (original) The method according to claim 24, wherein said
2 step d) comprises introducing a pressurized pressure medium
3 into a gap with a defined gap spacing size between said
4 foam backing and said back mold surface, and wherein said
5 introducing of said substrate material comprises
6 introducing said substrate material into said gap with said
7 defined gap spacing size between said foam backing and said
8 back mold surface that had been occupied by said pressure
9 medium in said step d).

1 29. (currently amended) The method according to claim [+] 24,
2 wherein said molded-in surface texture comprises one of an
3 artificial leather grain, an artificial wood grain, a
4 raised text, an indented text, a raised logo, an indented
5 logo, a geometric repetitive pattern of protrusions, and a
6 geometric repetitive pattern of indentations.

1 30. (original) A method of making a molded component using a
2 molding apparatus including a front mold having a front
3 mold surface with a front mold surface texture, and a back
4 mold having a back mold surface opposed to said front mold,
5 said method comprising the following steps:

- 6 a) providing a cover sheet including a skin film
7 comprising a skin film material, and a foam backing
8 comprising a foam backing material;
- 9 b) heating said cover sheet so as to heat said skin film
10 to a first temperature equal to or above a melting
11 temperature of said skin film material, and so as to

heat said foam backing to a second temperature below a melting temperature of said foam backing material;

- c) arranging said cover sheet between said front mold and said back mold with said skin film facing toward said front mold and said foam backing facing toward said back mold, and then moving at least one of said front mold and said back mold relatively toward each other with said cover sheet therebetween, so as to mechanically pre-mold said cover sheet toward said front mold surface;
- d) forming a pressure-tight seal between said foam backing and said back mold surface, and introducing pressurized air at a pressure in a range from 1 bar to 30 bar into a gap between said foam backing and said back mold surface so as to blow-mold said cover sheet and press said skin film against said front mold surface and thereby mold into said skin film a molded-in surface texture that is an inverse of said front mold surface texture;
- e) during said step d), venting air from between said skin film and said front mold surface;
- f) applying a vacuum between said skin film and said front mold surface;
- g) moving apart at least one of said front mold and said back mold relative to each other; and
- h) introducing a substrate material between said foam backing and said back mold surface, and then moving at least one of said front mold and said back mold

40 relatively toward each other, so that said back mold
41 surface presses against said substrate material and
42 molds and bonds said substrate material onto said foam
43 backing so as to form a molded substrate from said
44 substrate material.

Claims 31 to 35 (canceled)

1 36. (new) A method of making a molded component having a
2 molded-in surface texture, using a molding apparatus
3 including a front mold having a front mold surface with a
4 front mold surface texture, and a back mold having a back
5 mold surface opposed to said front mold, said method
6 comprising the following steps:
7 a) providing a cover sheet including a skin film portion
8 comprising a skin film material, and a backing portion
9 comprising a backing material;
10 b) differentially heating said cover sheet so as to melt
11 said skin film portion into a melted viscous liquid
12 state while maintaining said backing portion in an
13 elastic solid state;
14 c) arranging said cover sheet between said front mold and
15 said back mold with said skin film portion facing
16 toward said front mold and said backing portion facing
17 toward said back mold, and then moving at least one of
18 said front mold and said back mold relatively toward
19 each other with said cover sheet therebetween so that

20 said back mold surface mechanically pre-molds said
21 cover sheet toward said front mold surface;
22 d) forming a pressure-tight seal between said cover sheet
23 and said back mold around a perimeter;
24 e) after said steps c) and d), introducing a pressurized
25 gas into a gap between said back mold surface and said
26 backing portion of said cover sheet to press said
27 cover sheet toward said front mold surface and thereby
28 further mold said cover sheet and bring said skin film
29 portion into direct contact with said front mold
30 surface while said skin film portion is at least
31 initially at least partially still in said melted
32 viscous liquid state so as to mold into said skin film
33 portion a molded-in surface texture that is the
34 inverse of said front mold surface texture; and
35 f) after said step e), cooling said cover sheet and
36 moving apart at least one of said front mold and said
37 back mold relative to each other.

1 37. (new) The method according to claim 36, further comprising
2 removing air from between said skin film portion and said
3 front mold surface during said step e).

1 38. (new) The method according to claim 37, wherein said
2 removing of air comprises passive venting of air as said
3 pressurized gas presses said cover sheet toward said front
4 mold surface.

- 1 39. (new) The method according to claim 38, further comprising,
2 after said passive venting of air, and after said molded-in
3 surface texture has been molded into said skin film portion
4 and said skin film portion has at least partly cooled and
5 at least partly solidified, a further step of applying a
6 vacuum between said front mold surface and said skin film
7 portion of said cover sheet.
- 1 40. (new) The method according to claim 36, further comprising
2 applying a vacuum between said front mold surface and said
3 skin film portion after said step e).
- 1 41. (new) The method according to claim 40, wherein said vacuum
2 has a degree of gage vacuum of 0.05 to 0.3 bar below
3 atmospheric pressure.
- 1 42. (new) The method according to claim 40, wherein said vacuum
2 is applied only after said molded-in surface texture has
3 been molded into said skin film portion and said skin film
4 portion has at least partly cooled and at least partly
5 solidified.
- 1 43. (new) The method according to claim 36, wherein said
2 pressurized gas is introduced into said gap and maintained
3 at a gage pressure in a range from 1 to 30 bar.
- 1 44. (new) The method according to claim 43, wherein said gage
2 pressure is in a range from 5 to 20 bar.

1 45. (new) The method according to claim 36, wherein said
2 pressurized gas is compressed air.

1 46. (new) The method according to claim 36, wherein said step
2 b) is carried out to heat said skin film portion to a first
3 temperature in the range from 40°C to 70°C higher than a
4 second temperature to which said backing portion is heated.

1 47. (new) The method according to claim 36, wherein said step
2 b) is carried out to heat said skin film portion to a first
3 temperature in the range from 190°C to 210°C and to heat
4 said backing portion to a second temperature in the range
5 from 130°C to 150°C.

1 48. (new) The method according to claim 36, wherein said cover
2 sheet is oriented with said skin film portion facing
3 upwardly and said backing portion facing downwardly
4 throughout all of said steps.

1 49. (new) The method according to claim 36, wherein said step
2 b) comprises contacting said backing portion with a
3 tempered plate and directing heat radiation from an
4 infrared heater at said skin film portion.

- 1 50. (new) The method according to claim 36, further comprising
2 tempering said front mold and said back mold so as to
3 maintain a temperature of said front mold surface and said
4 back mold surface in the range from 50°C to 60°C.
- 1 51. (new) The method according to claim 36, wherein said skin
2 film material and said backing material both consist of the
3 same polymeric composition.
- 1 52. (new) The method according to claim 36, wherein said skin
2 film material and said backing material respectively
3 consist of different polymeric compositions.
- 1 53. (new) The method according to claim 36, wherein said
2 backing material is a polymeric foam backing material, and
3 said backing portion is a foam backing.
- 1 54. (new) The method according to claim 53, wherein said foam
2 backing material is a substantially closed-cell foam that
3 is not air permeable through a thickness thereof, and said
4 skin film material is a thermoplastic polyolefin.
- 1 55. (new) The method according to claim 54, wherein said foam
2 backing material comprises a different polymer material
3 than said thermoplastic polyolefin.

- 1 56. (new) The method according to claim 54, wherein said foam
2 backing material also comprises said thermoplastic
3 polyolefin.
- 1 57. (new) The method according to claim 36, wherein said
2 backing material comprises a polypropylene foam and said
3 skin film material comprises a polypropylene film.
- 1 58. (new) The method according to claim 36, further comprising,
2 after said step f), introducing a substrate material
3 between said cover sheet and said back mold surface, and
4 moving at least one of said front mold and said back mold
5 relatively toward each other, so that said back mold
6 surface presses against said substrate material and molds
7 and bonds said substrate material onto said backing portion
8 of said cover sheet so as to form a molded substrate from
9 said substrate material.
- 1 59. (new) The method according to claim 58, wherein said
2 introducing of said substrate material comprises
3 introducing said substrate material into said gap between
4 said backing portion of said cover sheet and said back mold
5 surface that had been occupied by said pressurized gas in
6 said step e).
- 1 60. (new) The method according to claim 36, wherein said
2 molded-in surface texture comprises one of an artificial
3 leather grain, an artificial wood grain, a raised text, an

4 indented text, a raised logo, an indented logo, a geometric
5 repetitive pattern of protrusions, and a geometric
6 repetitive pattern of indentations.

1 61. (new) The method according to claim 36, wherein said gap
2 measures no more than 5 mm between said back mold surface
3 and said backing portion of said cover sheet.

[RESPONSE CONTINUES ON NEXT PAGE]

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-13-